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ABSTRACT

A survey of 172 teachers of students with emotional and behavioral disorders (EBD) investigated the extent of level system use in special education classrooms, characteristics of teachers and students who use level systems, characteristics of level system operation, teacher perceptions of level system effectiveness, and their satisfaction with level systems. The design of the 29-item survey included a critical analysis of level system literature, a review by experts in behavioral management to establish content validity, a pilot test, and participant interviews to acquire feedback. Results found that the majority of teachers in all service delivery models except non-categorical resource rooms use level systems. Teachers included major components of level systems suggested in the literature, such as rewards and reward schedules; consequences; definitions of levels; and criteria for placement, advancements, and graduation. Students who generally had poor peer relationships were felt to be behaviorally and academically successful in level systems in special classes but unsuccessful in returning to regular classrooms. Because of the extent of level-system use in classes for students with EBD and the failure of most students to return successfully to regular classes, further research regarding level systems is urged. (Contains 51 references.) (Author/CR)

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Investigation of Level Systems in Classrooms for Students With Emotional and Behavioral Disorders

Daniel T. Farrell
Grand Canyon University

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F.E.R.C. NOTES ON THIS BULLETIN

This research was conducted in Florida, and Dr. Farrell was at the University of Florida before accepting a position at Grand Canyon University. It is of particular interest to those who are responsible for the education of these students at any level, from the State Department to the classroom.

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Investigation of Level Systems in Classrooms for Students With Emotional and Behavioral Disorders

Daniel T. Farrell, Ph.D.
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Executive Summary

Because students with emotional and behavioral disorders (EBD) present significant educational challenges, educators continue to seek effective behavior management strategies to assist students with EBD to manage their own behavior and achieve academic success. Some educators recommend the level system as a means by which students learn appropriate behavior. In a level system, students develop behaviors necessary for success in school by advancing through behaviorally defined levels as they show evidence of improvement. Little research exists, however, regarding level system use, characteristics, and effectiveness. The purpose of the current study is to investigate (a) the extent of level system use in special education classrooms; (b) characteristics of teachers and students who use level systems; (c) characteristics of level system operation; (d) teacher perceptions of level system effectiveness; and (e) their satisfaction with level systems.

From a population of 2,077 teachers of students with EBD in elementary, middle, and high school grades at regular and special day public schools in a southeastern state, a random sample of 200 teachers was selected for participation in a survey. The design of the survey included a critical analysis of level system literature, a review l experts in behavior management to establish content validity, a pilot-test and participant interviews to acquire feedback. The 29-item survey addressed teacher and student characteristics, level system use, characteristics, perceptions of effectiveness, and satisfaction. The return rate was 86%.

The system to code and record responses included assigning a code name and numeric value to each item, entering the data on coding sheets and into computer data file. Descriptive statistics on all variables are reported.

Results suggest that 71% of teachers of students with EBD currently use level systems in all special class settings including resource, self-contained special day schools at all grade levels. Used in a variety of ways, participants included major components of level systems suggested in the literature, such as rewards and reward schedules, consequences, definitions of levels, and criteria for placement, advancement, and graduation. Participants' students, who generally had poor peer relationships, were behaviorally and academically successful in level systems in special classes but unsuccessful in returning to regular classrooms. Because of the extent of level system use in classes for students with EBD and the failure of most students to return successfully to regular classes, further research regarding level systems is essential if educators are to address effectively the increasing behavior problems in our schools today.

Introduction

Statement of the Problem

Educators face serious challenges regarding students with emotional and behavioral disorders (EBD), including increasing behavior problems in schools and prevalence of students with EBD, problems in teaching students with EBD, and problems in achieving the educational goals of students with EBD. Nearly all sources of information indicate that behavioral problems in the public schools have become more prevalent, violent, and destructive during the past 20 years (Kauffman, 1993). In addition, the increasing incidence and seriousness of behavior problems in schools are reflective of increasing social problems (Bobbit & Rohr, 1993) that subsequently increase the risk of serious emotional and behavioral disorders (Knitzer, 1993; Wagner et al, 1991). As a result, the number of students with EBD has increased 45% since 1976 (United States Department of Education, 1994). Though currently less than 1% of the school-age population, reasonable estimates suggest a prevalence range of 3% to 6% (Kauffman, 1993).

There are also problems in teaching students with EBD, who are the most difficult to teach (Council for Children with Behavioral Disorders [CCBD], 1989) and the least likeable (Walker & McConnell, 1988). Disruptive, destructive, aggressive, defiant behaviors are least acceptable (Landrum, 1992) and significantly correlate with teacher stress (McManus & Kauffman, 1991; Pullis, 1992; Valli, 1992). Linked with a lack of teacher management skills, teacher-student interactions tend to deteriorate into aversive relationships (Landrum, 1992).

The difficulty in teaching students with EBD likely contributes to the failure to achieve educational goals for such students, that is, to function successfully in regular education settings.

Fewer than half of the students with EBD have been reintegrated for all or part of their education (Downing, Simpson, & Miles, 1990; Peterson, Smith, White, & Zabel, 1980). According to several researchers, (see, e.g., Baker & Zigmond, 1990; Kauffman, 1989; NcNutt, 1986; Sachs, 1988; Vandivier, 1981; Will, 1986), integration of students with EBD will continue to be limited in the future because of the inflexibility, negative attitudes, and lack of behavior management skills of regular educators.

Educators continue to search for effective means of managing behavior and educating students with EBD. Some educators maintain that teaching students with EBD can be successful with the use of a behavior management system known as a level system, an organizational framework within which a teacher can shape desired student behaviors in hierarchies of behavioral expectations or levels through systematic application of behavioral principles. Students learn through reinforcement and master target behaviors by fulfilling specific criteria at each level, advance to the next

level, and ultimately graduate from the system to return to the regular class. Research evidence, however, to support such a claim does not exist. The current study is the first attempt to investigate fully the use, characteristics, perceived effectiveness of level systems in the education of students with EBD.

Literature Review: Proposed Solution

The level system has long been espoused as a methodology to improve behavior with evidence of usage reported by Charles Dickens in the mid-1800s for juvenile offenders who through appropriate behavior could advance to a higher class with more privileges (Brenner, 1971). More recently, level systems appear to have evolved from behavior technology that was being applied to changing behavior of children and adults during the 1960s (Kazdin & Bootzin, 1972). A review of the literature reveals that level system use followed a progression from hospitals, prisons, and residential treatment centers for children and adults to day school and public school settings (see, e.g., Ayllon & Azrin, 1968; Bauer & Shea, 1988; Tish, Nersesian, Harrington, & Sugai, 1989). The level systems of the Engineered Classroom and Achievement Place represent the foundation models of current level systems.

The Engineered Classroom, the first major attempt to design, implement, and evaluate a level system for educating students with EBD in public schools (Hewett, 1968, 1981), consisted of an educational strategy with both educational goals in developmental curriculum and methodologies in a structured environment. A hierarchy of seven goals included prerequisite behaviors necessary for academic learning, such as attention, response, and order. The behavioral methodology combined teacher-assigned student tasks corresponding to the sequence of seven behaviors with reinforcement under controlled classroom conditions. The Madison School Plan (Taylor, Hewett, Artuso, Quay, Soloway, & Stillwell, 1972) extended the Engineered Classroom to foreshadow the current emphasis on treatment programs fostering generalization for successful inclusion in regular education. In this program, students progressed through four levels. The design and methodology of the Engineered Classroom was used for the Level One classroom. In the adjoining classroom, Level Two students worked in small groups to learn social behavior, and Level Three students received basic academic instruction in larger groups. Level Four was regular class placement.

Independent of Hewett's work, Phillips, Phillips, Fixen, & Wolf (1974) developed a level system at Achievement Place, a residential treatment program for juvenile offenders. Schedules of reinforcement defined levels of a point system. Children earned points and higher levels for appropriate behavior and could purchase rewards at increasingly longer intervals of time in the Hourly, Daily, and Weekly Point Systems. Children earned no points and free rewards in the Merit System and home visits on the Homeward Bound System.

Analysis of descriptive literature relating to level systems in education reveals that educators designed level systems emphasizing the various characteristics and components of both the Engineered Classroom/Madison School Plan and Achievement Place. As shown in Table 1, the recent literature is replete with descriptions of specific level systems applicable in many different settings for both elementary and secondary students. Although educators borrowed elements of both models, each level system is a uniquely designed program, different in purpose, setting, levels, rules, rewards, advancement criteria, and special features. The principles that govern level systems, however, remain the same including determining student entry and exit behaviors, graduated behavioral expectations arranged in levels with corresponding reinforcements, criteria for progress through the system, and transition to regular education. Educators have also designed standardized behavior intervention packages independent of academic curricula (see, e.g., Greenwood et al., 1979; Sprick, 1987; Walker & Shea, 1991), offered specific suggestions for implementation of level systems (see, e.g., Barbetta, 1900a, 1990b; Kerr & Nelson, 1989), and summarized classroom implementation procedures in a sequence of steps (see, e.g., Algozzine, 1990; Bauer, Shea, & Keppler, 1986; Bauer & Shea, 1988; Reisberg, Brodigan, & Williams, 1991; Sugai & Colvin, 1989; Walker & Shea, 1991). Presumably, education of children with EBD is possible through implementation of level systems.

Table 1
Descriptions of Level Systems in Research

Authors	Purpose	Setting	Levels	Rules	Rewards	Advancement	Special Features
Algozzine (1990)	• 11 steps to plan and implement level system • to increase self-management	All grade levels	4 + disciplinary and transition levels	Determine entry through terminal behaviors	Increasing reinforcers for each level appropriate for each student - frequency - reduce supervision	Determine minimum requirements of performance at each level	• Need communication system • Goal: self-management and personal responsibility
Avery (1985a, 1985b)	• Provide consistent framework of classroom management techniques and mainstreaming procedures	Elementary Secondary	6 levels, including Orientation and Discipline levels	Target behaviors at each level: self-control, responsibility, cooperation, work ethic	Points awarded for targeted behaviors and exchanged for special privileges and activities	Required mastery rate of behavioral performance at each level (60%-100%)	• Participation in regular classes begins at Level 2 for elementary and Level 3 for secondary and increased until complete mainstreaming and graduation from special education
Barbetta (1990a, 1990b)	• To teach BD students appropriate peer group functioning skills	Day school Primary BD students	3	Developed by students in group settings	7 points earned/lost each half-hour with intermittent bonus points group earns group privileges	% of group points earned daily determines privilege levels 90-100% top 80-89% middle below 80% bottom	• Uses positive comments, helpful hints, peer cueing, and daily group meetings • Includes suggestions for dealing with problems of the group

Table 1 (continued)
Descriptions of Level Systems in Research

Bauer, Shea & Keppler (1986) Bauer & Shea (1988) AULS[5]	• To increase self-management • To shape social, emotional, and academic behavior	Adolescent Residential	4	Standard class rules/individual contract	Increasing privileges & self-regulation	Group vote	• Self/peer evaluation
Bauer, Shea & Keppler (1986) Bauer & Shea (1988) GCCSEC[7]	• To increase self-management • To shape social, emotional, and academic behavior	Elementary Day schools	4 + ground level	Standard class rules & individual contracts	Increasing privileges & self-regulation	Self-decision 80% of possible points	• Group counseling
Bauer, Shea & Keppler (1986) Bauer & Shea (1988) PALS[3]	• To increase self-motivation and academic achievement	Secondary Public school	5	IEP goal set by the student at IEP conference • Personal journal writing • Participating in group and individual counseling	Increasing student privileges; Mainstreaming into regular education classrooms	Minimum # days, passing grades, % of completed assignments, attendance	• Student support team determined entry level
Bauer, Shea & Keppler (1986) Bauer & Shea (1988) CCBD[4]	• To increase responsibility & self-control • To shape social, emotional, and academic behavior	Secondary Day school	5	Different rules for each level; individual student contracts	Points earned, exchanged for increasing privileges & self-regulation	Minimum points and % of completed assignments, attendance, & passing; Student petition	• Student support team. • Regular education at level 4 & 5 • 11 steps to design system

Table 1 (continued)
Descriptions of Level Systems in Research

Braaten (1979)	• To provide support services enabling students to remain in public school	Jr. High SED Students	3	Sets of individual objectives for each level	5 points/period + bonus given each half-hour; earn special activities and rewards	Determined by treatment team when level objectives mastered	• Support personnel/services • Low staff/student ratio • 5 interrelated classes each at specific level • Levels Curriculum; Communication, Socialization, Academic, Counseling
Burkholder, Schroeder, & Smith (1983)	• To promote control over their own behavior and to establish an environment in which natural reinforcers will begin to maintain appropriate behavior	Elementary Secondary EBD Students	4	Minimum rules & expectations	Points and stars given immediately after targeted behavior	Accumulating the required number of points by maintaining behavioral goals and obeying rules	• Uses individual weekly and monthly goals
Gable & Strain (1981)	• To individualize treatment • To increase durability and generalizability beyond treatment setting	Residential facility for BD children	4	Specific class behaviors for levels 1 & 2 Categories of behavior for levels 3 & 4 Daily individual goal	Maximum points/period for specific behaviors menu of reinforcers Intermittently recorded punch cards	Daily evaluation Daily individual goal	• Response cost • Suggestions for unresponsiveness • Individualization • Self-monitoring and assessment at levels 3 & 4 • Daily evaluation and feedback

Table 1 (continued)
Descriptions of Level Systems in Research

Kerr & Nelson (1989)	• To account for improvement in student behavior • To develop student's competencies leading to regular class function	Elementary	3	Specific behaviors defined for each period of day	Token/points earned and deposited for reinforcing activities at each level	Minimum average for consecutive weeks	• Response cost • Time-out
La Nunziata, Hunt & Cooper (1984)	To gradually phase out token economy system without student progress interruption	Private day school for students with learning/behavioral problems (primary/intermediate grades)	4	Appropriate class behavior	• Tokens/15 min. exchange for activities • Checkmarks/30 min. exchanged for daily jobs and privileges • 1/2 day contracts exchanged daily for schoolwide privileges • Weekly report cards weekly special responsibilities	90% completion of assignments, with no major rule violation 10 consecutive days Backward movement: fail to meet minimum requirements 3 consecutive days	• The behavior point system of Achievement Place (see Phillips, Phillips, Fixon & Wolf 1974) • Useful in variety of settings
McCullough (1989)	Maximize inclusion appropriate for each student and permanent placement in regular education	Elementary Self-contained classroom BD students	5	Behaviors necessary for regular class identified and analyzed into 5 steps	Points earned and lost for specific behaviors; increasing privileges and mainstreaming	Minimum number of days with positive points	Task analysis and successive approximation

Table 1 (continued)
Descriptions of Level Systems in Research

McKinney (1989)	• To Assist with staying on task and reducing inappropriate behavior • To create consistency in behavior management & affective academic curricula	Elementary EH self-contained students	4	Behaviors different at each level	Earned points for privileges and rewards; inclusion in regular classes	Minimum performance of individual targeted behaviors	Students' off-task behavior reduced 30% Increased consistency among participating teachers
Reisberg, Brodigan, & Williams (1991)	• Motivational plan for behavioral improvement	Middle school EBD	3	On task behavior	Earned Merits, increasing privileges and responsibilities for appropriate behavior	Increasing % of possible merits for specified period of time	Demerits & punishers for inappropriate behavior
Vetter-Zemitch, Bernstein, Johnston, Larson, Simon, Smith & Smith (1984)	To help BD students develop behavioral, social, emotional, and academic skill necessary	High school Male/female BD adolescents	5	Appropriate class behavior	5 points/period earn long/short term reinforcers	Determined by parents, staff, and students	• Use of support personnel and psychotherapeutic interventions • Ongoing evaluation: attendance and academic progress for mainstream success

Note: [1]AULS: Adolescent Unit Levels Systems
[2]GCCSEC: Greater Clark County Special Education Cooperative
[3]PALS: Personal Adjustment Level System
[4]CCBD: Children's Center for Behavior Disorders

Problems with Proposed Solution

Although use of a level system may be a practical response for teachers to manage student behavior and organize classrooms, widespread recommendation in the literature and adoption in classrooms occurs without regard for research evidence concerning its efficacy. Despite the abundance of descriptive literature, little research exists regarding the extent of level system use, effectiveness, and efficiency (Smith & Farrell, 1993). Only three studies, shown in Table 2, support the use of level systems in an educational setting. The paucity of research and methodological inconsistency in existing level system research provide insufficient evidence for conclusions regarding the effectiveness of level systems. According to Smith and Farrell (1993), the use of level systems has become an accepted, handed-down approach to managing student behavior, rather than a researched-base methodology. There is need for exploratory studies of level systems.

The purpose of the research was to investigate (a) the extent of level system use in special education classrooms; (b) characteristics of teachers and students who use level systems; (c) characteristics of level system operation; (d) teacher perceptions of level system effectiveness; and (e) their satisfaction with level systems.

Table 2
Summary of Level System Research

Authors	Purpose	Setting	Design	Levels	Rules	Rewards	Advance	Special Features	Results Conclusions
Beuchert-Klotz (1987)	• To describe and evaluate Behavior Management Level System	36 emotionally disturbed adolescents in special schools	• Comparison of pre-post position on level system	6	• One standard set of classroom rules for all students for all levels	• Reinforcements purchased • More points, more rewards, fewer restrictions at higher levels	• Increasing point requirements for each level • Required number of consecutive successful days	• Graduation after level 5 • Training phase • Daily point sheet and weekly reports	• 24 students progressed one or more level, 4 reached highest level • Positive reaction by staff • Student reaction depended upon success in program • Effective for broad range of students
Mastropieri, Jenne, & Scruggs (1988) Class #1	• To decrease inappropriate classroom behavior (talkouts & out-of-seat)	11 BD & 4 LD high school resource English students	• Comparison of behavior and academic performance through 9 weeks of program	4	• Increasing appropriate classroom behavior, self-monitoring, and mainstreaming	• Increasing classroom privileges and responsibilities	• Student request level change • 85% accuracy on assignments + majority vote weekly + individual behavior contracts	• Increasingly fewer restrictions • Tangible reinforcers not used • Color-coded tags	• Decreased talkouts and out-of-seat behavior • 12/15 students improved behavior 14/15 moved up a level • Student ratings of system determined by level achieved
Class #2	• To improve completion and accuracy of classroom and homework assignments	4 students in high school resource English class	• 9 weeks: baseline, treatment, reversal, reinstatement	3	•85% accuracy and assignment completion	Same	Same	Same	• Increased assignment completion and accuracy

Table 2 (continued)
Summary of Level System Research

Authors	Purpose	Setting	Design	Levels	Rules	Rewards	Advance	Special Features	Results Conclusions
Brennock, Zemitzsch, & Simon (1989)	• To describe high school behavior program and roles of support personnel for main-streaming students	97 self-contained BD high school students placed in total of 354 main-streamed classes	• Comparison of pre-post attendance and pass-fail performance	5	• On time • In Seat • Working • Appropriate language and behavior	• 5 points per period earned for long- & short-term reinforcers	• Determined by parents, staff, and students	• Support personnel, psychotherapeutic interventions • Decreasing support and guidance, level 5 to level 1	• 20 students fully mainstreamed • 72% of mainstreamed classes passed • Improved attendance (69 to 91%)

Methodology

A. Subjects

The target population consisted of all 2,077 teachers in classrooms for students with EBD in Florida. A random sample included 200 teachers of this population. Participants were employed at the time in regular and center schools at elementary, middle, and high school grade levels.

B. Procedures

Sampling. A complete list of Florida teachers coded on the state database as teachers in classrooms for students with EBD, a matter of public record, was available from the state database of the Florida Department of Education. The investigator randomly chose a name in the random order listing of all 2,077 teachers, provided by the Northeast Regional Data Center (NERDC) and the Center for Instructional and Research Computing Activities (CIRCA) at the University of Florida, and selected the next 200 teachers. As a result, the sampling reflected the total target population and included teachers of students with EBD in elementary, middle, and high school grade levels at regular and special public schools.

Development of survey. Variables identified through level system literature and a critical analysis of level systems (Smith & Farrell, 1993) provided the content for designing the large-scale survey. Demographic data such as race, sex, education, certification(s), number of years in field, current teaching assignment, and certification type for current teaching area was included in the eleven-page survey.

Five experts in behavior management of students with EBD reviewed survey items and format prior to a pilot test to determine the content validity of the instrument and readability of individual items. Twenty-five current teachers of students with EBD were selected from the state database to pilot the survey packet and provide feedback on the instrument. Following analysis of the results of the pilot test and debriefing of five respondents, reliability of the survey was established by a measure of internal consistency (i.e., Cronbach's Alpha).

Dissemination of survey. After final revision, 200 sample participants were mailed a survey packet with a letter stating the importance of the study and a stamped, self-addressed envelope. Initially, participants were given a 10-day response period. Follow-up telephone calls and 3 separate mailings of additional packets were used to increase the response rate.

C. Treatment of Data

Compilation of survey response data included assigning a code name to each item and a numeric value corresponding to each answer, entering codes on a coding sheet and then into a computer data file. Analysis of data as accomplished through descriptive statistics of means, standard deviations, and frequencies on all variables.

D. Results

Response Rate. The total number of returned surveys was 172, representing an overall return rate of 86%, an adequate level for educational research (Best & Kahn, 1989). All participants responded completely and correctly to all items.

Use of Level Systems. Of the 172 respondents to the survey, 122 teachers (71%) of students with EBD in Florida currently use level systems and 50 teachers (29%) do not. Of the 50 teachers who do not currently use level systems, 20 teachers (40%) no longer used level systems and 30 teachers (60%) have never used level systems.

Teacher characteristics. Data regarding the characteristics of teachers who use and do not use level systems included the numbers and percentages of the total sample and those who use and do not use level systems regarding gender, ethnicity, level of education, and Florida teacher certification. Teaching experience in terms of total years and years in special education are also reported.

As shown in Table 3, males (n=36) represented 20.9% and females (n=136) represented 79.1% of the sample. Similar to the percentages of the total sample, males constituted 18.0% and females 82.0% of teachers who used level systems. Further, 61.1% of male teachers (n=22) and 73.5% of female teachers (n=100) used level systems. A majority of male and female participants used level systems.

Table 3. Gender Profile of Survey Respondents

	Total		Level System			No Level System		
	n	%	LS	% of LS	% of s	NLS	% of NLS	% of s
a. Male	36	20.9	22	61.1	18.0	14	38.9	28.0
b. Female	136	79.1	100	73.5	82.0	36	26.5	72.0

Note: Total Level System Teachers (LS) = 122
Total Non-Level System Teachers (NLS) = 50
Total Sample (s) = 172

As shown in Table 4, the ethnicity of respondents included 7.6% African-Americans (n=13), 84.3% Caucasian (n=145), 5.8% Hispanic (n=10), 1.2% Haitian (n=2), and 1.2% American Indian (n=2). The percentage of those who used level systems was relatively similar for African-Americans (69.2%, n=9),

Table 4. Ethnic Profile of Survey Respondents

	Total		Level System			No Level System		
	n	%	LS	% of LS	% of s	NLS	% of NLS	% of s
a. African-American	13	7.6	9	69.2	7.4	4	30.8	8.0
b. Caucasian	145	84.3	104	71.7	85.3	41	29.3	82.0
c. Haitian	2	1.2	1	50.0	0.8	1	50.0	2.0
d. Hispanic	10	5.8	7	70.0	5.7	3	30.0	6.0
e. American Indian	2	1.2	1	50.0	0.8	1	50.0	2.0
f. Asian American	0	0.0	0	0.0	0.0	0	0.0	0.0

Caucasians (71.7% n=104), and Hispanics (70.0%, n=7). Fifty percent of both Haitians (n=1) and American Indians (n=1) used level systems. In addition, the percentage of each ethnic group in the sample matched that of those who used and those who did not use level systems in each ethnic group. For example, for African-Americans (7.6% of the sample), 7.4% used and 8.0% did not use level systems. Caucasians (84.3% of the sample) represented 85.3% who used and 82% did not use level systems. A majority of respondents in each ethnic category used level systems.

Regarding the education of the respondents, 56.4% of teachers had earned bachelor's degrees (n=97), and 40.1% had earned master's (n=69), as shown in Table 5.

Table 5. Education Profile of Survey Respondents

Degree	Total		Level System			No Level System		
	n	%	LS	% of LS	% of s	NLS	% of NLS	% of s
a. Bachelor's	97	56.4	71	58.2	73.2	26	52.0	26.8
b. Master's	69	40.1	47	38.5	68.1	22	44.0	31.9
c. Specialist's	4	2.3	4	3.8	100	0	0.0	0.0
d. Doctorate	2	1.2	0	0.0	0.0	2	4.0	100

Of the 122 teachers who used level systems, 58.2% earned bachelor's degrees (n=71), 38.5% earned master's (n=47), and 3.8% specialist's (n=4). In addition, the percentages of level system teachers with bachelors (73.2%) and with masters (68.1%) were similar. The four specialists used level systems and the two with doctorates did not.

As shown in Table 6, 73.3% of the respondents were certified in EH (n=126), of whom 73.0% (or 53.5% of the total sample) used level systems (n=92).

Table 6. Florida Teacher Certification Profile of Survey Respondents

	Total		Level System			No Level System		
	n	%	LS	% of LS	% of s	NLS	% of NLS	% of s
a. EH	126	73.3	92	73.0	53.6	34	27.0	19.7
b. Areas (not EH)	44	25.6	28	63.6	16.4	16	36.4	9.3
d. None	2	1.1	2	100	1.1	0	0.0	0.0

Further, 25.6% of respondents were certified in areas other than EH (n=44), of whom 63.6% (or 16.4% of the total sample) used level systems. In addition, two teachers reported no Florida teacher certification and both used level systems.

The range of teaching experience varied for both total years teaching (0 to 31) and years in special education (0 to 23 years). As shown in Table 7, the mean number for total years experience was 7.9 with a standard deviation of 7.1 and for special education years 6.4 with a standard deviation of 5.7. In both total years and special education years, 4.7% (n=8) were in their

Table 7. Teaching Experience

Years	Mean	Median	SD	Range
a. Total	7.9	5	7.1	0-31
b. Special Education	6.4	4	5.7	0-23

first year of teaching. In total years experience, 36.6% (n=63) had 3 years or less, 51.2% (n=88) 5 years or less, and 5.2% (n=11) more than 20 years experience. In years of teaching special education, 44.2% (n=76) had 3 years or less, 57.0% (n=98) 5 years or less, and 1.8% (n=3) more than 20 years experience.

Table 8. Grade Profile of Survey Respondents

	Total		Level System			No Level System		
	n	%	LS	% of LS	% of S	NLS	% of NLS	% of s
a. K-3	67	39.0	51	76.1	29.7	16	23.9	9.3
b. 4-5	62	36.0	46	74.2	26.7	16	25.8	9.3
c. 6-8	66	38.4	48	72.7	27.9	18	27.3	10.5
d. 9-12	38	22.1	23	60.5	13.4	15	39.5	8.7

Note: Teachers indicated more than one grade level.

As shown in Table 8, the percentages of teachers who taught elementary (K-3, 4-5) and middle school (6-8) grades were similar. Representation for these grade levels ranged from 36% to 39%. Teachers with level systems in these grades ranged from 72.7% to 76.1% of each grade and 26.7% to 29.7% of the total sample (n=172). Primary teachers (K-3) used level systems most frequently (n=51, 29.7%), followed by middle school teachers (n=48, 27.9%) and teachers in fourth and fifth grades (n=46, 26.7%). High school teachers (9-12) had the least number of respondents (n=38, 22.1%) and used level systems less frequently (n=23, 13.4%). A significant majority of teachers in each grade, however, used level systems, ranging from about 75% in elementary and middle schools to 60% in high schools.

Respondents represented all service delivery models except itinerant teaching and hospital-homebound settings. As shown in table 9, a majority of teachers in other service delivery models except non-categorical resource rooms (n=3, 30%) used level systems. Most respondents (n=105, 61.0%) taught in categorical self-contained classes, of whom 75.2% (n=79) used

Table 9. Service Delivery Model for Survey Respondents

	Total		Level System			No Level System		
	n	%	LS	% of LS	% of S	NLS	% of NLS	% of s
a. Team Teaching	1	0.06	1	100	0.06	0	0.0	0.0
b. Itinerant Teaching	0	0.0	0	0.0	0.0	0	0.0	0.0
c. Resource C	24	14.0	15	62.5	8.7	9	37.5	5.2
d. Resource NC	10	5.8	3	30.0	1.8	7	70.0	4.1
e. Self-Contained C	105	61.0	79	75.2	46.0	26	24.8	15.1
f. Self-Contained NC	13	7.6	8	61.5	4.7	5	38.5	2.9
g. Special School	15	8.7	14	93.3	8.1	1	6.7	0.06
h. Hospital-Homebound	0	0.0	0	0.0	0.0	0	0.0	0.0
i. Residential	2	1.2	0	0.0	0.0	2	100	1.2

Note: C = Categorical, NC = Non-Categorical

level systems. One respondent taught with a regular teacher and used a level system. The two respondents who taught in residential settings did not use level systems. The highest percentage of level system teachers was 93.3% (n=14) in special schools. About 60% of teachers in categorical resource and non-categorical self-contained classes used level systems.

Student characteristics. Teacher perceptions of student behavior characteristics included covert and overt behaviors (Quay, 1987), behaviors characterized by medical problems, and specific behaviors essential in the federal definition of behavioral disorders (poor relationships and poor academic performance). As shown in Table 10, teachers rated each behavior on a Likert Scale with 1 representing never and 6 representing frequently.

Table 10. Characteristics of Students of Survey Respondents

	Mean	SD	Median	
	COVERT	3.7	(Total Scale X)	
a.	Withdrawal	3.2	1.4	3
b.	Anxiety	4.4	1.4	5
c.	Depression	3.7	1.3	4
i.	Noncompliance	4.8	1.3	5
j.	Lying	4.2	1.3	4
k.	Stealing	3.2	1.4	3
n.	Substance Abuse	2.3	1.4	2
	OVERT	4.6		--
		(Total Scale X)		
d.	Aggression	5.0	1.1	5
f.	Fighting	4.2	1.5	5
g.	Disruption	5.2	1.0	6
h.	Defiance	4.9	1.2	5
l.	Profanity	4.3	1.5	5
m.	Destructiveness	3.8	1.5	4
	MEDICAL	4.3		--
		(Total Scale X)		
o.	Hyperactivity	5.0	1.0	5
p.	Attention Deficit	5.0	1.1	5
q.	Impulsivity	5.2	1.0	6
r.	Psychosis	2.9	1.4	3
s.	Health Problems	3.0	1.3	3
	OTHER			
e.	Poor Relationships	5.3	1.0	6
t.	Academic Performance	4.7	1.3	5

Covert behaviors include withdrawal, anxiety, depression, noncompliance, lying, stealing, and substance abuse (Kauffman, 1993). Of the four areas of investigation, the mean rating of covert behaviors was the lowest in frequency (X=3.7) with standard deviations of specific behaviors ranging from 1.3 to 1.4. Substance abuse had the lowest mean (X=2.3) and noncompliance the highest (X=4.8). Most respondents rated withdrawal at 2 in the scale (n=57, 33%), noncompliance at 6 (n=72, 41.9%), and lying at 4 and 5 (n=96, 55.8%). Anxiety scores were evenly distributed between 4 and 6 (n=128, 75.4%). Depression scores ranged primarily from 3 to 5 (77.9%). Substance abuse received the lowest overall ratings of 1 (n=69, 40.1%) and 2 (n=46, 26.8%) by teachers.

Teachers rated overt behaviors high (X=4.6). Such behaviors included aggression, fighting, disruption, defiance, profanity, and destructiveness. In this group, the highest means were for disruption (X=5.2) and aggression (X=5.0). Ratings for disruption at 6 for 55.2% (n=95) of respondents,

for defiance at 6 for 43.6% (n=75), and for aggression at 5 and 6 for 71.5% (n=123) were notable. Ratings for profanity were evenly distributed from 2 to 5, but 33.1% (n=57) chose 6. Destructiveness received the lowest rating (X=3.8).

The third category of behaviors, medical conditions, included impulsivity, (X=5.2), hyperactivity (X=5.0), and attention deficit (X=5.0). Psychosis (X=2.9) and health problems (X=3.0) received the lowest ratings. Respondents rated their students between 5 and 6 for impulsivity (n=143, or 83.1%), hyperactivity (n=132, or 76.7%), and attention deficit (n=134, or 77.9%).

Respondents viewed poor social relationships as the most frequent behavior problem (X=5.3). Most teachers responded with ratings of 5 and 6 in this category (n=141, 82%). The frequency of academic achievement of respondents' students received a rating of 4.7.

Characteristics of the Level Systems. Data about level systems were obtained from responses to 19 closed-ended items and one open-ended question in Part IV of the survey. Only teachers who used level systems (n=122) responded to Part IV survey questions. The survey contained items describing components generally associated with effective and efficient level systems (Smith & Farrell, 1993). A small percentage of respondents (11.3%) marked "Other" on the eight survey items with that choice. Further inspection of those items revealed that in most cases the answer was an example of an item already listed. For example, one respondent selected "Other" for rewards and wrote "stickers," a tangible item. Accordingly, level system components most commonly used by teachers of students with EBD have been identified in the survey.

The results of data regarding teachers' sources of knowledge and purposes of their level systems are reported. Questions about level systems include decisions regarding student placement and participation, hierarchies and number of levels, rewards and schedules, consequences, advancement and graduation criteria, and record keeping.

Teachers gained knowledge about level systems from many sources. Teachers ranked sources of their knowledge from the most important (1) to the least important (8). As shown in Table 11, the primary sources of their level systems were their own creativity (X=2.8) and other teachers (X=2.9). Professional reading (X=3.5) and college behavior management

Table 11. Teacher Knowledge about Level Systems

Rank	Mean	Median	SD
1 Creativity	2.8	2	1.9
2 Other Teachers	2.9	2	2.0
3 Professional	3.5	3.5	2.2
4 College Courses	3.6	3.5	2.5
5 School Support Personnel	3.8	4	2.8
6 District Support Personnel	4.2	4	2.7
7 Teacher In-Service Workshops	4.4	5	2.6

courses (X=3.6) rank third and fourth, followed by school administrators and support personnel (X=3.8). District administrators and support personnel (X=4.2) ranked sixth and teacher in-service workshops last (X=4.4).

Teacher purpose of level systems was defined in survey items by teacher control, as shown in Table 12. Such items refer to purposes of level systems for the benefit of teachers.

Table 12. Teachers' Purposes of Level Systems

	Mean	Median	SD
TEACHER CONTROL	4.48		
a. Control student behavior	5.0	5	1.3
f. Provide disciplinary consequences	4.8	5	1.5
b. Stop disruptive behavior	4.7	5	1.5
c. Structure classroom	4.6	5	1.7
d. Maintain authority	4.1	4.5	1.9
e. Manage responsibilities	3.7	4	1.9

Teachers marked a Likert scale value from 1 (disagree) to 6 (agree) for each teacher behavior including stopping disruption, controlling student behavior, structuring class activities, maintaining authority, managing class responsibilities, and providing disciplinary consequences. The primary purpose of level systems according to the respondents was to control student behavior (X=5.0). More than 50% of the respondents indicated that the purpose of level systems was to control behavior to a great degree. Teachers also considered level systems important to provide disciplinary consequences (X=4.8), stop disruptive behavior (X=4.7), and structure classroom and activities (X=4.6). Maintining authority in class (X=4.1) and managing class responsibilities (X=3.7) were also important purposes of level systems. The mean score for teacher control was 4.48.

Teachers indicated which students participated in level systems in their classes, schools, and school district. In most cases, all students in the class were assigned to a level system (n=100, 82.0%) and many respondents (n=51, 41%) reported, as shown in Table 13, that all students with EBD throughout the school district participated in level systems. In a very few cases,

Table 13. Students Assigned to Level Systems

	n	%
b. All students in my class	100	82.0
f. EH and SED students districtwide	51	41.8
e. All students schoolwide	13	10.6
d. All students with disabilities schoolwide	8	6.6
c. Some students schoolwide	7	5.7
a. Some students in my class	5	4.1

some students in the class (n=5, 4.1%), some students in the school (n=7, 5.7%), and all students in the school (n=13, 10.6%) were assigned to level systems.

In addition to which students participate in level systems, the initial placement of students on level systems is an important consideration. In 77.9% (n=95) of the responses, students began at the lowest level. As shown in Table 14, few teachers (n=12, 9.9%) made the decision for initial placement alone. Some teachers (n=15, 12.4%) indicated that none of the items listed was their method and explained their placement process. For example, one teacher placed her students on the highest level and students descended

Table 14. Teachers' Initial Placement Decisions

	n	%
b. All students begin at lowest level.	95	77.7
f. Other	15	12.4
b. Teacher Decision	12	9.9
c. Student and Teacher Decision	0	0.0
d. Group (Students and Teacher) Decision	0	0.0
e. IEP planning team Decision	0	0.0

levels with inappropriate behavior. Other teachers had included a trial level for a brief period of time during which the teacher could evaluate student behavior and make a decision. According to respondents, individual students with their teachers, small groups of teachers and students, or IEP teams did participate in decisions for initial placements.

Educators frequently suggest common components of effective and efficient level systems (Smith & Farrell, 1993). One purpose of the present investigation was to determine how teachers constructed and operated their level systems. The results of teachers' use of common components in the structure of level systems are reported, including those features that remain the same throughout the level system, the number of levels, and the definition the teachers' hierarchical sequences in the levels.

One characteristic of level systems pertains to the degree of flexibility to meet the needs of individual students. As the initial assignment for all students was primarily at the lowest level regardless of student needs, the characteristics and procedures were mostly the same for all students on a level system (n=89, 72.1%). As shown in Table 15, some teachers (n=25, 20.5%) made special accommodations for some students. Few teachers (n=8, 6%) had designed different systems for each student.

Table 15. Characteristics and Procedures of Level Systems

	n	%
a. The same for all students	89	72.1
b. The same for students with exceptions	25	20.5
c. Different for each student	8	6.6
d. Other	1	0.8

As shown in Table 16, the number of levels in systems ranged from 0 to 9. Teachers frequently used 5 levels (n=53, 43.4%) or 4 levels (n=50, 41.0%)

Table 16. Number of levels

	Mean	Median	SD
	4.4	4.5	1.2
Number of Levels	Frequency		
	n	%	
0	3	2.5	
2	1	0.8	
3	7	5.7	
4	50	41.0	
5	53	43.4	
6	6	4.9	
9	2	1.6	

in their systems. Three teachers called "levels" by other names and as a result marked zeros. One teacher used two levels and two teachers used nine levels. Six teachers used six levels and seven teachers used three levels.

As shown in Table 17, teachers defined the sequence of levels in a variety of ways.

Table 17. Teacher's Definitions of the Sequence of Levels

	n	%
a. Increasing behavior expectations	110	90.2
d. Increasing value of rewards/privileges	99	81.1
c. Increasing adherence to standardized rules	80	65.6
e. Different reward schedules	55	45.1
f. IEP planning team decision for each student	17	13.9
g. Other	16	13.1
b. Different rules at each level	15	12.3

Teachers indicated most often that their sequence was defined by increasing behavior expectations for their students (n=110, 90.2%) and increasing value of rewards and privileges (n=99, 81.1%). Teachers also frequently chose increasing adherence to standardized class rules (n=80, 65.6%) and different reward schedules (n=55, 45.1%) as indicators of a particular level. Different class rules at each level was uncommon (n=15,12.3%). Likewise, the IEP planning team (n=17, 13.9%) rarely made the decision for the definition of the sequence of levels for students.

Although a high percentage of respondents had increasing behavior expectations through their level systems, 63.1% (n=77) indicated that class rules remained the same at every level. As shown in Table 18, teachers often indicated that each level is different in some ways (n=56, 45.9%). Rewards (n=20, 16.4%) and schedules of rewards (n=22, 18.2%) remained the same at each level in some level systems.

Table 18. Constant Components in Levels

	n	%
a. Behavior/classroom rules	77	63.1
d. Each level is different	56	45.9
c. Schedules of rewards	22	18.2
b. Rewards	20	16.4

Operation of level systems. Within the structure of the levels, specific, clearly defined procedures are necessary for efficient operation of level systems. Procedures include reward systems, negative consequences for inappropriate behavior, advancement criteria, and record keeping. Level systems unite different types of rewards meaningful to students with reasonable and consistent schedules of rewards. Negative consequences may be defined as natural outcomes, such as failure to earn rewards, or punishment, such as suspension. Advancement criteria are the measures by which a student progresses to the next level and graduates from the system. Record keeping is essential for efficient management and evaluation of both individual students and the system itself.

As shown in Table 19, the results indicated that respondents used a variety of rewards, especially special activities and privileges (n=112, 91.8%). Free time (n=96, 78.7%), tangible items (n=99, 81.1%), and tokens and points (n=102, 83.6%) were also used frequently. The 21 teachers who responded "Other" (n=21, 17%) gave specific examples of tangible items, special activities, and special privileges.

Table 19. Rewards

	n	%
d. Special Activities	112	91.8
e. Special Privileges	112	91.8
b. Tokens/Points	102	83
a. Tangible Items	99	81.1
c. Free Time	96	78.7
f. Other	21	17.2

Survey participants indicated that they rewarded students for appropriate behavior according to different time schedules. As shown in Table 20, most teachers used intervals from 1 to 55 minutes (n=71, or 58.2%) and from 1 to 4 hours (n=71, or 58.2%). Several teachers noted that their reward schedules depended upon the length of class periods and selected either the number of minutes in a period or one hour. Some teachers had special rewards at the end of each week and grading period (n=40, 23.3%).

Table 20. Reward Schedules

	n	%	Range
a. minutes	71	58.2	1-55
c. days	71	58.2	1-5
d. weeks	40	23.3	1-9
b. hours	25	14.5	1-4

Teachers often used negative consequences in their level systems. As shown in Table 21, most teachers selected failure to earn rewards (n=102, or 83.6%), restrictions and lost privileges (n=101, or 82.8%), and time-out (n=98, or 80.3%). Placement at lower levels was a consequence for 67.2% (n=82). One teacher had no negative consequences. Only 13.9% of the teachers (n=17) involved the IEP planning team in decisions about consequences. Administrators intervened for 52.5% of respondents (n=64). Teachers used in-school suspension (n=67, 54.9%) and out-of-school suspension (n=53, 43.4%).

Table 21. Negative Consequences

	n	%
f. Failure to Earn Rewards	102	83.6
c. Restrictions/Lost Privileges	101	82.8
e. Time-out	98	80.3
j. Placement at Lower Level in System	82	67.2
b. Fines or Lost Points/Tokens	79	64.8
g. In-School Suspension	67	54.9
d. Referrals to Administrators	64	52.5
h. Out-of School Suspension	53	43.4
k. Other	19	15.6
i. IEP Planning Team Decision	17	13.9
a. None	1	0.8

Necessary level system components, clearly-defined criteria for progress through level systems provide measurement standards of student achievement for teachers and achievable and observable goals for students. As shown in Table 22, teachers used a combination of requirements for student level advancement, such as successful performance for a specific period of time (n=96, 78.7%) and earning a specific number of points (n=78, 63.9%). Fulfilling behavior contracts was necessary for some teachers (n=23, 18.9%). Advancement was rarely an IEP planning team decision (n=7, 5.7%), group decision by students and teachers (n=6, 4.9%), or teacher decision alone (n=5, 4.1%).

Table 22. Criteria for Advancement to the Next Level

	n	%
b. Successful Performance for Specific Time Period	96	78.7
a. Earning Specific Number of Points	78	63.9
d. Fulfilling Behavior Contract	23	18.9
g. Other	12	9.8
f. IEP Planning Team Decisions	7	5.7
c. Group decision (students and teacher)	6	4.9
e. Teacher Decision Alone	5	4.1

As shown in Table 23, according to most respondents, students had to demonstrate appropriate behavior for a specific period of time (n=97, 79.5%) to graduate from level systems. In addition to that requirement, students needed to earn a specific amount of points (n=52, 42.6%) or fulfill behavior contracts (n=25, 20.5%). The IEP planning team (n=36, 29.5%) more often played a role in decisions regarding graduation of students from the level systems than in other level system decisions. In some instances, group decision by students and teachers (n=19, 15.6%) and decisions by teachers alone (n=16, 13.1%) determined graduation from level systems.

Table 23. Criteria for Graduation from Level Systems

	n	%
b. Successful for Period of Time	97	79.5
a. Earning Specific Number of Points	52	42.6
f. IEP Planning Team Decisions	36	29.5
d. Fulfilling Behavior Contracts	25	20.5
c. Group Decision (Students/Teacher)	19	15.6
g. Other	19	15.6
e. Decisions by Teacher	16	13.1

For level systems to be manageable, teachers need efficient methods for keeping records. As shown in Table 24, teachers who used level systems kept many different types of records for students and recorded behavior at various intervals. In most classrooms, teachers designed point charts (n=103,

Table 24. Records and Recording of Behavioral Progress

	n	%
12 Records		
a. Behavior Charts	74	60.7
b. Anecdotal Records	73	59.8
c. Point Charts	103	84.4
d. Home Notes	77	63.1
e. Progress Reports	64	52.5
f. IEP Objectives	52	42.6
g. Other	9	7.4
12 Recording		
a. Continuously	75	61.5
b. Daily	89	73.0
c. Hourly	39	32.0
d. Weekly	49	40.2
e. Other	14	11.5

84.4%) and communicated with parents through home notes (n=77, 63.1%). Teachers recorded student behavior in behavior charts (n=74, 60.7%), anecdotal records (n=73, 59.8%), and progress reports (n=64, 52.5%). IEP objectives were records of behavior for 42.6% of teachers (n=52). Teachers recorded behavior continuously (n=75, 61.5%), daily (n=89, 73.5%), hourly (n=30, or 32.0%), and weekly (n=49, 40.2%).

Teacher Perceptions of Effectiveness. Teacher perceptions of student success in regular classes, student behavioral and academic progress, and student responsibility are major indicators of perceptions of level system effectiveness. In addition, estimates of timelines of student progress through the level systems yield evidence of perceived effectiveness.

Success in regular classes depends upon the extent to which students return to regular class, achieve academically, exhibit appropriate behavior in regular classes, and successfully exit special education programs. As shown in Table 25, perceptions of teachers regarding student success in level systems may be determined by teacher ratings of their success in regular classes, their improvement in behavior, their academic performance, and their ability to accept responsibility. For each goal, teachers selected a number in a Likert scale from 1 to 6 corresponding to whether students in

Table 25. Student Success in Level Systems

	Mean	Median	SD
MAINSTREAM	3.22		
a. Gradual Return	3.6	4	1.3
b. Achieve academically	3.3	3	1.3
c. Exhibit appropriate behavior	3.7	4	1.4
d. Return full-time	2.8	2	1.3
e. Exit special education programs	2.7	2	1.3
BEHAVIOR	4.40		
f. Follow class rules	4.5	5	0.9
g. Follow teacher directions	4.5	5	0.9
h. Cooperate with others	3.9	4	1.1
i. Develop a positive self-image	4.1	4	1.2
o. Accept consequences of behavior	5.0	5	1.1
ACADEMIC PROGRESS	4.26		
k. Complete assignments accurately	4.0	4	1.1
j. Complete assignments on time	4.2	4	1.1
l. Make academic improvement	4.4	4	1.1
m. Participate in class activities	4.6	5	1.0
n. Work independently	4.1	4	1.1
RESPONSIBILITY	4.12		
p. Exercise self-control	4.4	5	1.1
q. Learn and use self-management skills	4.4	4	1.2
r. Accept responsibility for their behavior	4.4	5	1.2
s. Be self-motivated in their studies	3.6	4	1.2
t. Solve problems	3.8	4	1.2

the class never (1) or frequently (6) attained the goal. According to respondents, students seldom return full-time to regular classes (X=2.8) or exit special education programs (X=2.7). Students are moderately successful in academic achievement (X=3.3) and appropriate behavior (X=3.7). Teachers also rated students' gradual return to regular classes as a moderate success (X=3.6). Overall, teachers did not consider mainstreaming as a goal that students frequently attained (X=3.22).

A primary goal of level systems is to change behavior (Smith & Farrell, 1993). Goals for exhibiting appropriate behavior include students following class rules and teacher directions, cooperating with others, developing a positive self-image, and learning the consequences of their behavior. According to respondents, students frequently learned to accept the consequences of their behavior (X=5.0). To a lesser degree, students followed class rules (X=4.5) and teacher directions (X=4.5). Students made the least improvement in developing a positive self-image (X=4.1) and cooperating with others (X=3.9). Generally, students moderately improved their behav-

ior in level systems (X=4.40).

An assumption guiding the use of level systems is that improved behavior promotes academic success (Smith & Farrell, 1993). Specific behaviors increase the likelihood of academic success. For example, students need to complete assignments accurately and on time, make academic improvement, participate in class activities, and work independently. According to respondents, students are able to complete assignments accurately (X=4.0) and on time (X=4.2) and make academic improvement (X=4.4) in classes with level systems. Teachers gave student participation in class activities the highest rating (X=4.6). Teachers rated academic performance (X=4.26) in level systems similar to their rating of student behavior.

If students are to be successful in school, they need to learn responsibility. Students can demonstrate responsibility in many ways, such as exercising self-control, learning and using self-management skills, accepting responsibility for their behavior, showing initiative in their studies, and solving problems. Teachers reported that students in their classes exercised self-control, learned and used self-management skills, and accepted responsibility for their behavior to the same degree (X=4.4). According to respondents, students, however, showed initiative (X=3.6) and were able to solve problems (X=3.8) to a lesser degree. The mean for teacher ratings of student responsibility was 4.12.

Student progress through the level systems is another indicator of teacher perceptions of the effectiveness of level systems. Measurement of student progress through level systems is possible from data regarding teachers' perceptions of advancement of students through level systems yearly and estimated timelines for advancing to the next level and graduating from level systems.

According to respondents, students often moved up in level systems (X=4.8) in one year but rarely exited the level system (X=2.1) or returned to regular class (X=2.1), as shown in Table 26.

Table 26. Advancement of Students in Level Systems Yearly

	Mean	Median	SD
YEARLY STUDENT PROGRESS	1.65		
a. Move up	4.8	5	1.0
b. Move down	-2.5	2	1.4
c. Remain at same level	(2.4)	2	1.2
d. Exit level system	2.1	2	1.1
e. Return to regular class	2.1	2	1.0
f. Remain in level system after graduating from level system	(2.1)	1	1.5

Note: Move down [-2.5] is subtracted from total score. Remain at same level [(2.4)] and after graduating [(2.1)] are omitted from the total score.

Few students remained at the same level for the year (X=2.4) and in class after graduating (X=2.1). To determine an overall mean for yearly student progress through the level system, I added positive items (i.e., moving up, exiting, and returning to regular class), omitted items with no progress (i.e., remaining at the same level and after graduating), subtracted the negative item (i.e., moving down), and divided the total by 4. As a result, the mean for yearly student progress in level systems was 1.65.

An indication that a level system is reasonably effective is the perceived timeline for students to advance to the next level. As shown in Table 27, most teachers (n=72, 59.0%) selected 2 to 6 weeks as their estimated timeline for advancing levels. The estimated timeline for some teachers (n=28, 23.0%) was 2 to 4 months. For a few teachers (n=18, 14.8%), students generally advanced levels in 5 to 9 days. Four teachers (3.3%) reported that students advanced levels only after a semester or more.

Table 27. Timelines for Student Advancement to Next Level

	n	%
a. 5-9 days	18	14.8
b. 2-6 weeks	72	59.0
c. 2-4 months	28	23.0
d. 1 semester or more	4	3.3

Graduation is an essential goal of level systems (Smith & Farrell, 1993). Data concerning expected timelines for graduation are also indications of perceived effectiveness of level systems. As shown in Table 28, most teachers reported that students graduated after one semester or more (n=81, 66.4%). Few students graduated in less time. In a noticeable percentage of level systems, students did not graduate (n=32, 26.2%).

Table 28. Timelines for Student Graduation

	n	%
a. 5-9 days	0	0
b. 2-6 weeks	4	3.3
c. 2-4 months	5	4.1
d. 1 semester or more	81	66.4
e. Students to not graduate	32	26.2

Teacher Satisfaction. According to the survey data, teachers were satisfied with level systems (X=4.9), as shown in Table 29. Teachers at times found level systems difficult to manage (X=2.5) and too much paperwork (X=2.8). Level systems, however, seldom met with student or teacher resistance (X=2.3) and rarely with administrative resistance (X=1.5).

Table 29. Teacher Satisfaction

	Mean	Median	SD
SATISFACTION	4.9		
a. Satisfactory	4.9	5.5	1.5
b. Difficult to manage	2.5	2	1.5
c. Too much paperwork	2.8	2	1.7
d. Students resistance	2.3	2	1.4
e. Regular teacher resistance	2.3	2	1.5
f. Administrator resistance	1.5	1	1.0

E. Conclusion

The purpose of the survey investigation was to collect data from teachers of students with EBD and determine the extent of their use of level systems, the characteristics of teachers and students who use them, the design and operation of level systems, teacher perceptions of their effectiveness and satisfaction with level systems. A survey designed and sent to a random sample of 200 teachers from the total population of 2,077 teachers of students with EH and SED in Florida. With a return rate of 86%, 71% of respondents used level systems. The analysis of the survey data suggests that level systems are used extensively by teachers of students with EBD in Florida. Use is extensive in spite of little research regarding the effectiveness of the level system model of behavior management.

Descriptive data revealed a sample of mostly female, Caucasian teachers with bachelors' degrees. Gender, ethnicity, and education were independent of the use of level systems. About 73% had certification in EH. With a range of experience from less than 1 year to more than 30 years, the average time of respondent teaching was about 7 years. More than half of the respondents, however, had less than 5 years teaching experience.

Except in non-categorical resource rooms, a majority of teachers in every service delivery model and each grade used level systems. As expected, level systems are used most extensively in special schools (93%) and self-contained categorical classrooms (75.2%) and are not as common in resource rooms. In addition, survey respondents believe that level systems are ineffective for self-management and mainstreaming. It may be the case that, because of the restrictiveness of settings in which level systems are used, teachers may not have level system components that extend support to their students in mainstream settings. That is, they use level systems in

their classes to orchestrate the behavior of students in that setting alone. As a result, students who participate in level systems in restrictive settings may not have opportunities to be successful outside of level systems.

Respondents viewed poor social relationships as the most frequent problem followed by overt behaviors, impulsivity, hyperactivity, and attention deficit. The placement for students with EBD is often a segregated setting because of poor relationships. The segregation of studens with the educational goal of improving peer relationships present educators with an obvious dilemma. In addition, the primary goal of teachers for their students tends to be learning classroom behaviors necessary for success in the mainstream (which, according to survey respondents, is not achieved) and not improving peer relationships. Further, overt behaviors such as aggression, fighting, disruption, destructiveness, profanity, and defiance are very frequent student behavior problems noted by survey respondents, which may indicate why control is so important to teachers.

Analysis of data reveals that survey respondents use all components of level systems outlined in the literature. Used in a variety of ways, major components of level systems include rewards and reward schedules, consequences, definitions of levels, criteria for placement, advancement, and graduation. The question, however, remains whether any specific characteristics of components contribute to the effectiveness of level systems.

According to most respondents, the structure of level systems was the same for all students with infrequent accommodation for individual students. All students were generally assigned to level systems and initially to the lowest of 4 or 5 levels. Behavior expectations were generally the same for all students at every level. Teachers frequently defined different levels with increasing behavior expectations and value of rewards. Such consistency and simplicity lends support to reasons why teachers may choose level systems. Because IEP planning teams made insignificant contributions to the design and operation of level systems and to decisions regarding student participation, the question remains, however, whether level systems meet the individual needs of students as defined on IEPs.

The operation of level systems involved extensive use of rewards and negative consequences, varied reward schedules, level advancement criteria, and record keeping procedures. Teachers most frequently rewarded students with special activities and privileges. Although survey respondents used a variety of negative consequences for inappropriate behavior, including failure to earn rewards, restrictions, and time-out, about half of the teachers used in-school suspension and out-of-school suspension. Use of level systems does not seem to provide a solution to the problem of suspension of students with EBD. In addition, IEP planning teams participated in decisions about consequences 13.9% of the time in spite of the fact that the IEP for students with EBD concerns behavior. IEP planning teams seldom contributed to level system decisions.

Teacher beliefs about the effectiveness of level systems were measured

in terms of their perceptions of student success in level systems and perceived timelines for progress through systems. While students frequently improved their behavior, succeeded academically, and demonstrated responsibility in level systems, they seldom returned full-time to regular classes or exited special education programs. The goal of mainstreaming students with EBD is seldom achieved. A possible implication of survey results is that level systems are successful for students who operate in level system frameworks but do little to prepare students for success beyond level systems. Cooperation and participation of the entire school community in the level system may be necessary to support children with EBD. Furthermore, while a majority of respondents believe that most of their students advance in their level systems during a typical year, a few students move down or remain at the same level and never graduate. The level system is not effective at all for some students.

Finally, according to survey data, teachers were satisfied with level systems. In addition, level systems seldom met with student or teacher resistance and rarely with administrator resistance. Resistance may be low because regular teachers may have little to do with level systems or with the students in level systems. The question remains regarding resistance if students placed on level systems attended regular teachers' classes. Administrators who are often called upon for assistance in cases of students with behavior problems were, according to survey respondents, least resistant to level systems. The degree of student resistance is an indication of teacher perceptions of level system satisfaction for students. In fact, student resistance may concern elements of the level system such as the demands of the teacher, the failure to earn rewards, and the loss of privileges, rather than the level system itself.

An important question remains regarding level system effectiveness and satisfaction. Why are teachers satisfied with level systems when level systems are not effective in helping students achieve the important goals of mainstreaming and self-management skills? Purposes of the level systems for students are mainstreaming and self-management (Bauer et al., 1986). Teachers, however, are primarily and directly concerned with academic and behavioral improvement of their students in their own classes. Teacher control, rated as very important by survey repondents, is related directly to behavior and academic improvement. As a result, one reason why teachers may be satisfied with level systems is because of their perceived success in issues that relate directly to themselves, that is, student behavior and academics. The level system is a framework to guide teacher responses to inappropriate behavior. Because teachers know what they will do to control behavioral problems, they may be satisfied with level systems.

Survey respondents indicated that level systems had minimal management difficulties including paperwork. Simplicity of level systems contributes to teacher satisfaction with level systems and dispels notions that level systems need be complicated and difficult to manage. Another advantage

of level systems for teachers is adaptability. Teachers can adapt the structure to their personal needs and preferences and to the individual needs of students who often demonstrate the need for structure.

Survey data has provided information from teachers of students with EBD in Florida about the use of level systems. Because of extensive level system use, teacher perceptions of effectiveness of and satisfaction with level systems, varying degrees of the success of students with EBD in level systems, further research regarding level systems is essential if educators are to address effectively the increasing behavior problems in our schools today.

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